

CLAIMS

1. A semiconductor nonvolatile storage circuit including first and second MISFETs,

source terminals of the first and second MISFETs connecting to a ground potential,

gate terminals of the first and second MISFETs connecting to a first word line,

a drain terminal of the first MISFET connecting to a bit line, and

a drain terminal of the second MISFET connecting to a differential pair line of the bit line,

the semiconductor nonvolatile storage circuit comprising:

a first switching element to electrically open/close a path between the drain terminal of the first MISFET and the bit line;

a second switching element to electrically open/close a path between the drain terminal of the second MISFET and the differential pair line.

2. The semiconductor nonvolatile storage circuit according to Claim 1,

wherein the first and second switching elements are third and fourth MISFETs, and

wherein gate terminals of the third and fourth MISFETs connect to a second word line.

3. The semiconductor nonvolatile storage circuit according to Claim 1 or 2,

wherein the drain terminals of the first and second MISFETs connect to the ground potential via third and fourth switching elements, respectively.

4. The semiconductor nonvolatile storage circuit according to Claim 3,

wherein the third and fourth switching elements are fifth and sixth MISFETs, and

wherein gate terminals of the fifth and sixth MISFETs connect to a differential pair line of the second word line.

5. The semiconductor nonvolatile storage circuit according to any of Claims 2 to 4, further comprising:

a volatile storage circuit whose one storage node connects to the bit line and the other storage node connects to the differential pair line of the bit line,

wherein a drain terminal of the third MISFET connects to the one storage node of the volatile storage circuit,

wherein a drain terminal of the fourth MISFET connects to the other storage node of the volatile storage circuit,

wherein the one storage node and the other storage node of the volatile storage circuit connect to each other via a fifth switching element, and

wherein a ground line of the volatile storage circuit connects to the ground potential via a sixth switching element.

6. The semiconductor nonvolatile storage circuit according to any of Claims 1 to 5,

wherein a conduction resistance value of the first or second MISFET is changed so that conduction resistance values of the first and second MISFETs differ from each other by applying an intermediate voltage between a power supply potential and a ground potential to the first word line and by applying the power supply potential to any one of the bit line and the differential pair line of the bit line, whereby "1" or "0" is stored in accordance with the difference between the conduction resistance values.